COMMENTARY

Family Medicine Billing for Point-of-Care Ultrasound (POCUS)

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Point-of-care ultrasound (POCUS) is getting a fresh look in family medicine (FM) physicians in primary care, motivated by interest from recent medical school and residency graduates and a growing body of studies demonstrating POCUS increases quality of care and patient satisfaction.[1,2] Outside of a study by Niblock, there is little data available on how much of the recent increase in training has resulted in the successful usage of POCUS in primary care. According to the study, the percentage of all primary care physicians that billed Medicare for POCUS (excluding obstetric ultrasound) from 2012 to 2017 was 9.3%, with over half being FM physicians (52.2%), followed by internists (43.7%), and the small remainder were general practitioners and geriatricians. Although billing Medicare is a rough representation of actual clinical utilization, it gives us a glimpse into the true prevalence of ultrasound integration in clinical practice. The amount of billing data currently available is limited, but that is not surprising as many applications for POCUS are still relatively new, education is still in the growth phase, and barriers in implementation and credentialing continue to challenge FM physicians.

For this study, it is helpful to note that POCUS can be difficult to assess as there is no universally agreed definition. On one end of the spectrum, one can imagine a traditional ultrasound study as a comprehensive study performed by a sonographer within 20 to 30 minutes and is interpreted by a specialist who generates a detailed report for the ordering physician. Imagine POCUS as starting from the opposite spectrum, a quick study that answers limited questions, performed by the physician directly delivering care at the time of the visit. Between these 2 opposites are different studies that can also be considered POCUS: repeat studies; studies for procedural guidance; and studies that are gradually more comprehensive and time-consuming consistent with a traditional radio-logic study but still performed by the primary physician. Different stakeholder organizations are actively in discussions about the definition of POCUS and its direction going forward.

Before we get much further, I'd like to highlight some aspects of the study that may be underestimating overall ultrasound billing. Medicare data excludes a large percentage of POCUS that could be performed by FM physicians, most notably limited transabdominal ultrasound of the pregnant patient, which was perceived as one of the most helpful scans for primary care.[3,4] The second limitation of assessing Medicare data, which the author noted, is that the survey only captures clinicians that bill a single current procedural terminology (CPT) code more than 10 times per year. As family physicians have broad ultrasound application skill sets, they could be using ultrasound frequently and scanning many different applications; for example, musculoskeletal, pelvis, abdomen, aorta, heart, lung, soft tissue, ocular, and needle guidance. If FM physicians are billing different ultrasound CPT codes, but 10 or less of any one code, they may not be captured by the survey.

In discussions exploring the low number of physicians billing for POCUS, it is helpful to differentiate barriers to billing from obstacles to utilization of

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POCUS overall. In terms of utilization, a prevalent limitation to FM POCUS utilization is the cost of ultrasound units. Cart-based or laptop-sized systems may still be too expensive for some clinics without a plan to bill for a return on investment. With the proliferation of pocket-sized and smart device compatible probes, basic ultrasound capabilities will be more and more feasible as time goes on.

Progress in POCUS education is underway; however, there is a growing divide of educational opportunities for recent graduates versus physicians in practice. Compared with previous years, there is an increasing number of FM residencies that report providing educational ultrasound experience or is in the process of formalizing curriculums, from 47% in 2014 to 67% in 2017.[5] The number of dedicated primary care POCUS fellowships are also expanding or now accepting FM physicians into emergency medicine (EM) POCUS fellowships. In 2014, there was only one ultrasound fellowship dedicated to training those in primary care. At the time of this article, I know of 7 ultrasound fellowships open to non-EM applicants. Outside of fellowship, POCUS training opportunities for FM physicians after residency remain patchy. A survey of FM residency directors in 2019 cites a lack of trained faculty as the number one reason POCUS is not being taught at their program.[5] For faculty, there is a growing list of regional and national continuing medical education opportunities with a general medicine or primary care focus. However, more offerings that are longitudinal would be beneficial. One recommendation is that the community convenes a group of FM physicians with POCUS expertise to develop guidelines that drive educational changes, such as POCUS use on FM ultrasound board examinations.

So, if POCUS education and equipment cost reduction progress is underway, what are the remaining barriers to billing? Although this has not been directly studied, in my work as the Chair of the American Academy of Family Physicians (AAFP) POCUS Members Interest Group, I have found 2 major challenges to be prevalent. First, to meet billing criteria for radiologic CPT codes, physicians must implement additional steps (mainly the generation of an independent report and permanent image storage) into the POCUS workflow. In the age of digitalization of medical information, reporting can be expedited with pre-populated fields and templates; however, meeting standards for image archival and protection of patient information continues to be a hurdle. Physicians in a busy primary care setting may feel that the additional steps are not worth the hassle and not bill at all. Outside of the loss of opportunity to recoup operational costs, not getting paid for work performed and not implementing documentation and archival might make a clinical decision based on POCUS, in theory, difficult to defend in court. In practice, interestingly, there are currently no published examples of litigation for POCUS found in primary care.[6]

The other factor associated with physician billing is the practice setting. The study by Niblock found that more ultrasounds were billed from practices in a rural setting, in the south, and among more experienced physicians. This finding contrasts with those from an EM study on POCUS and Medicare billing that found more studies billed from academic centers and cities and among new graduates.[7] Again, this could either mean more rural FM physicians are using ultrasound than urban physicians, or this could point to a difference in the ease of ultrasound billing in different practice settings. Anecdotally, physicians that are solo-practitioners, or are in private practice, have reported fewer credentialling barriers to bill for ultrasound, whereas hospital systems require employed physicians to be credentialed before they can bill for the ultrasound. Physicians that have achieved ultrasound competency and are meeting the standards for billing may lack the institutional support to take the next logical step and bill Medicare.

On the AAFP FM POCUS members interest page, I often review posts from members who are the first in their practice settings to perform POCUS and face the seemingly overwhelming task of blazing a novel credentialing pathway. They may face skepticism from internal specialty groups stating that family physicians do not have the training to perform an ultrasound. Furthermore, there is a general scarcity of FM-specific billing resources[8] and the absence of guidelines from our own institutions that support credentialing of the novel user to convince hospital administration that FM physicians with training can perform POCUS. For example, guidelines for training, privileging, and billing of POCUS in EM was first published in 2001 by the American College of Emergency Physicians (ACEP)[9], and the Society of Hospital Medicine published their POCUS position article in support of Hospitalists in 2019.[10] The AAFP published a guideline outlining a training curriculum for residents in 2016,[11] but since then, there have been no further policies to guide local privileging and billing practices pertaining to POCUS. We, as FM

physicians, should convene a working committee to draft a credentialing and billing guidelines, especially in the setting of primary care.

After focusing on all these barriers, I want to take a step back and reflect on the bigger picture. In my role as a FM clerkship director, FMIG advisor, and core FM residency faculty, I often think about the identity of our specialty and what it means for the next generation. To my students, I tout our broad scope of practice and recite our credo of taking care of the whole patient from the cradle to the grave. POCUS is a tool uniquely matched for the curious FM physician who identifies as a lifelong learner and wishes to stay up to date or maintain a broad scope of practice. A transabdominal scan is not only helpful in confirming an intrauterine pregnancy but can also detect signs of a ruptured ectopic pregnancy, a new collection of ascites from liver disease, or bladder obstruction in older persons. POCUS helps guide a complex knee or hip injection when traditional landmarks are unreliable. For my colleagues on the road, its portability is particularly helpful in resource scare environments, such as on home visits, volunteering at the free clinic, and on the sidelines of a sporting event. For those FM physicians that maintain hospital privileges, ultrasound helps increase confidence with volume assessments, inpatient procedures like paracentesis, and practicing obstetrics. In pediatrics, POCUS is useful for diagnosing constipation, appendicitis, and pneumonia. Pediatric ultrasound is recognized by the American Academy of Pediatricians,[12] and is probably the next frontier of POCUS in primary care, which will bring the tool full circle in terms of scope practice.

While there are lots of hurdles and ambiguity, what is clear from my experience is that POCUS is one of the best bedside tools for assessing patients in terms of diagnostic accuracy and the care of the patient.[13] As we pivot from fee-for-service to more value-based care, I anticipate that challenges for billing and credentialing will also continue to evolve. In theory, ultrasound characteristics should be a natural fit for value-based care, as it is less costly and is without the risk of radiation and contrast like computed tomography and magnetic resonance imaging.[4] POCUS is a tool that could help the FM physician improve their diagnostic capability, reduce trips to the emergency department (for example, earlier detection of abscess from cellulitis), avoid rehospitalizations during the transition of care visits, such as aiding diuresis in a patient with congestive heart failure. More studies are needed to know what family physicians *can* do with POCUS, and in this regard, facing its challenges, for me, is worth the effort.

To see this article online, please go to: http://jabfm.org/content/34/4/856.full.

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